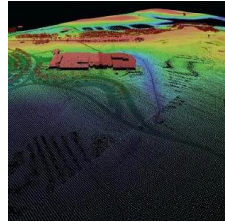
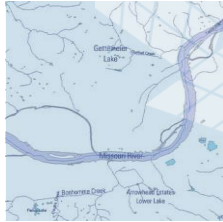
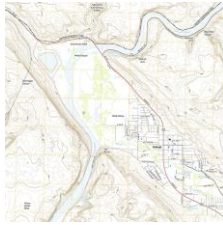




3D Elevation Program (3DEP) FY18 /19 Broad Agency Announcement (BAA) Instructional Webinar



fbo.gov 140G0118R0037
grants.gov G18AS00078
August 22, 2018

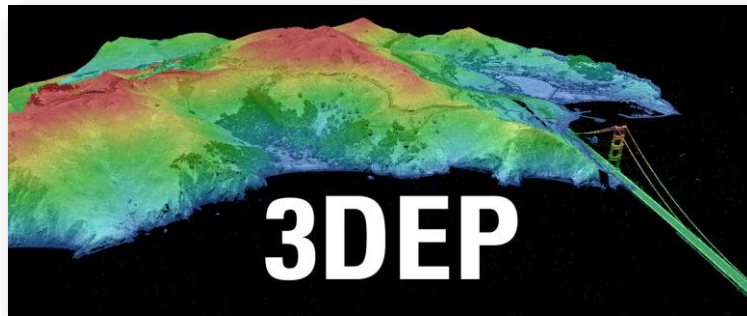
+

3D Elevation Program (3DEP)

BAA Instructional Webinar - PURPOSE

2

Provide a comprehensive overview of the Fiscal Year (FY) 2018 / 2019 Broad Agency Announcement (BAA) solicitation and application process



gs_baa@usgs.gov

Good afternoon and welcome everyone to the 3D Elevation Program Broad Agency Announcement instructional webinar.

My name is Diane Eldridge, I am here today representing the 3D Elevation Program where I serve as the 3DEP Data Acquisition Coordinator. Oversight for 3DEP is the responsibility of the US Geological Survey; operationally the program is managed and operates within the National Geospatial Program. However, 3DEP is a collaborative program for acquiring enhanced elevation data for the nation and includes many Federal, State, Tribal and Local governments as well as private sector and non-profit organizations who are working together to achieve the goal of national coverage. I am joined by my colleagues Ms. Allyson Jason and Ms. Diana Thunen; Allyson and Diana will be facilitating the Question and Answer portion of this afternoon's webinar.

We greatly appreciate your interest in the 3DEP program and are happy that you have taken the time to join us.

The purpose of today's webinar is to provide a comprehensive overview of the Fiscal Year (FY) 2018 Broad Agency Announcement (BAA) solicitation and application process. The FY18 solicitation results in awards in the Federal FY19.

+

3D Elevation Program (3DEP)

BAA Instructional Webinar - LOGISTICS

3

- Everyone but the speakers are on mute for the duration of the call
- Please use Q&A feature to submit questions – see the panel on the right
- Questions will be addressed after the presentation
- If we can't address all your questions during this session we will follow up by posting answers to the webpage:

<http://nationalmap.gov/3DEP/FY19BAA.html>



gs_baa@usgs.gov

Before we dive into the agenda, let's cover a bit of housekeeping.

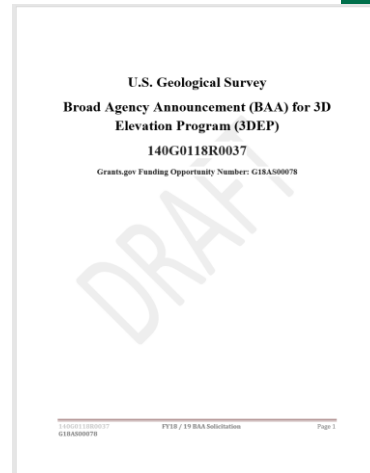
- Everyone but the speakers will be placed on mute for the duration of the call
- Please use the Q&A feature to submit questions
- Questions will be addressed after the presentation
- If we can't address all the questions during this session we will follow up by posting answers on the webpage listed at the bottom of this slide.
- At any point during the open window of the BAA, questions can be submitted to gs_baa@usgs.gov. You will see this e-mail address on the bottom right of a number of slides throughout the presentation. Responses to questions submitted to the BAA mail box will be responded to individually and then generified and added to the list of BAA FAQs so that all may benefit from the additional information. The FAQs will be updated weekly throughout the open period of the BAA.
- To make a response generic we will answer the original question ... such as "we would encourage Smith County" whereas the generic response might be ... we would encourage any county ...

+ 3D Elevation Program (3DEP)

4

BAA Instructional Webinar - AGENDA

- 3DEP Program Overview
- Summary of the Fiscal Year 2014 -2017 BAA Results
- Overview of the Fiscal Year 2018 BAA Solicitation
 - Timeline
 - Solicitation and Attachments
 - Selection Criteria
 - Changes from previous year
 - Resources
- Overview of the Fiscal Year 2018 Application Process
 - Submission Forms
- Questions and Answers



gs_baa@usgs.gov

Moving on to the agenda, again we have a full presentation, designed to provide a comprehensive look at the 3DEP BAA process.

Our presentation will begin with a brief 3DEP Program Overview.

Next we will provide a summary of the results of our previous BAAs. This summary will assure that all applicants are aware of existing, in-work and planned data. For those new to the process it will inform you on the scope and size of successful BAA projects. For those familiar with the process this review will be timely as later in the presentation we will highlight the differences in the FY18 criteria and application process.

As part of this discussion, we will present the timeline, discuss the criteria for the selection of BAA projects, and point you to our web pages which are the primary means of keeping you informed.

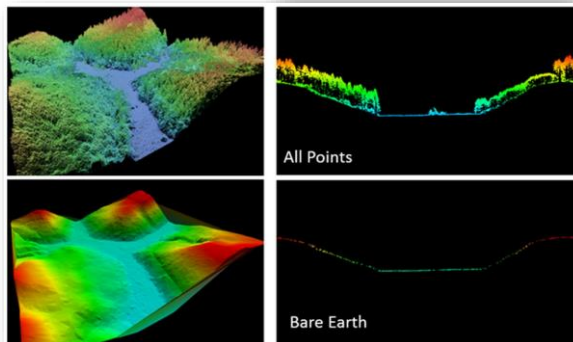
It is important to note that the BAA has not yet been posted. The target release window is August 31st – September 14th. The Federal Business Opportunity Number 140G0118R0037 and the grants.gov Opportunity Number of G18AS00078 are the correct numbers that will lead you to the opportunity once the BAA has been posted. Once active, the USGS will post the direct links on our web pages. We will also share the links through a technical announcement and through USGS social media outlets.



3D Elevation Program (3DEP) Goals

5

- Apply lidar technology to map bare earth and 3D data of natural and constructed features to enable more accurate understanding, modeling, and prediction
- Goal to complete acquisition of national lidar coverage with IfSAR in Alaska in 8 years
- Address the mission-critical requirements of 34 Federal agencies, 50 states, and other organizations documented in the National Enhanced Elevation Assessment
- ROI 5:1, conservative benefits of \$690 million/year with potential to generate \$13 billion/year
- Leverage the capability and capacity of private industry mapping firms
- Achieve a 25% cost efficiency gain by collecting data in larger projects
- Completely refresh national elevation data holdings with new products and services



You may be familiar with the long history of the USGS in providing elevation data, first through contours on our topographic maps and later as digital data in the National Elevation Dataset. The 3D Elevation Program is our current effort to provide updated high density national elevation data.

This program is transformational because it applies ground-breaking lidar data to provide not only a higher resolution bare earth elevation surface, but it also provides us with 3-dimensional data of all the natural and constructed features. These data are transforming industries and creating new applications never before possible.

The program also calls for increasing the quality level of lidar data being acquired because it meets many more mission critical applications.

Our goal is to acquire national lidar coverage in 8 years, with ifsar data in Alaska.

We like to call 3DEP a call for community action because it is an effort to address more than 600 mission-critical needs that were reported by 34 Federal agencies, 50 states, and a sampling of other organizations and documented in the National Enhanced Elevation Assessment of 2012. Many of you may be participating in the current 3D Nation Requirements and Benefits Study, a study designed to determine elevation needs from our highest mountains to our deepest oceans. 3DEP will use this information to assure our national programs continue to satisfy the needs of our nation for high quality enhanced elevation data.

3DEP is also a call for community action because it is a partnership that depends on the collaboration of Federal, state, local, tribal and other partners to fund the data acquisition.

3DEP is designed to provide a 5 to 1 return on investment and a conservative dollar benefit of more than 690 million dollars annually if implemented in 8 years.

3DEP leverages the expertise and capacity of the private sector mapping firms that acquire the data for us through the USGS Geospatial Products and Services Contract, and through partner acquisitions.

By acquiring data in larger project areas, 3DEP will help all of the partners realize a cost efficiency gain we estimate to be about 25% lower costs.

And of course we will completely refresh our publicly available, national data holdings to replace the patchwork of quality and sources with consistent, new lidar and ifsar data products and services. In 2015 the program began delivering these new products and services through The National Map.

+ 3D Elevation Program (3DEP)

Mission Critical Applications

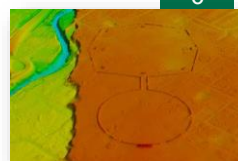
6



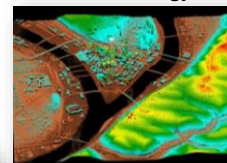
Flood Risk Management



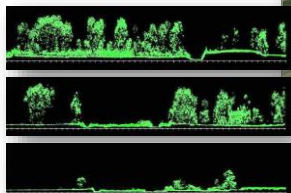
Alternative Energy



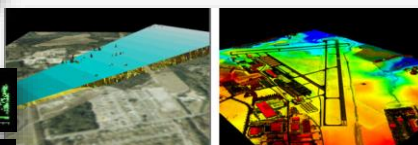
Archaeology



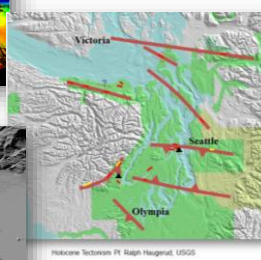
Infrastructure Management



Precision Forestry



Aviation Safety



Geologic Hazards



For most of our presentations we like to demonstrate the many mission critical applications of 3DEP. Today we have limited time for this overview, so I am highlighting just a few of them.

Flood risk management is one of the uses that has the highest dollar value and societal benefits from 3DEP, and FEMA has been a big partner and supporter of 3DEP.

Other applications include, precision forestry and alternative energy – this example is a Los Angeles County application that is used to determine solar potential.

Lidar helps detect obstacles to air navigation for aviation safety

Geologic hazards is a critical application area for lidar – here we have an image of the tragic Oso WA landslide, and an image showing where lidar revealed previously unmapped faults.

3DEP is useful to archaeology and to infrastructure management which with our aging infrastructure is a growing national concern.

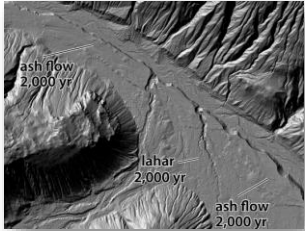
Again these are just a few of the important uses of 3DEP that remind us why this effort and our collaboration is so critical to the Nation.

3D Elevation Program (3DEP)

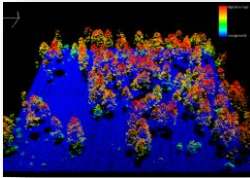
Mission Critical Applications

7

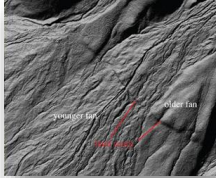
Natural Hazards:
Identifying features in heavily forested and snow covered Glacier Peak




Climate and Land Use Change: Combining Landsat and lidar data to support terrestrial biomass estimates



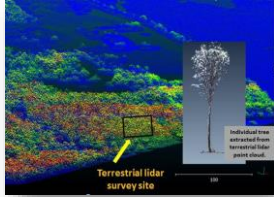
Energy and Minerals:
Investigating geology in the Southwestern US to provide information on mineral and energy resources



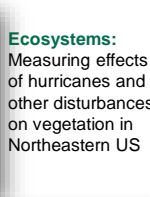
Water: Modeling flood inundation along the Upper Mississippi



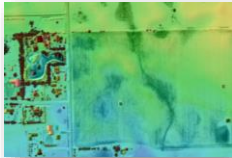
Core Science Systems:
Assessing the impact of fire on forest structure and wildlife habitat in the Great Smoky Mountains




Ecosystems:
Measuring effects of hurricanes and other disturbances on vegetation in Northeastern US



Environmental Health:
Identifying 3D relationships between agricultural fields, windbreaks, and buildings to support environmental health studies





As the program matures and additional data become available, program participants are discovering new and innovative ways to utilize the data.

The applications highlighted on this page represent utilization of the data within the USGS where each of the USGS mission areas have explored and discovered uses of lidar data to support their missions.

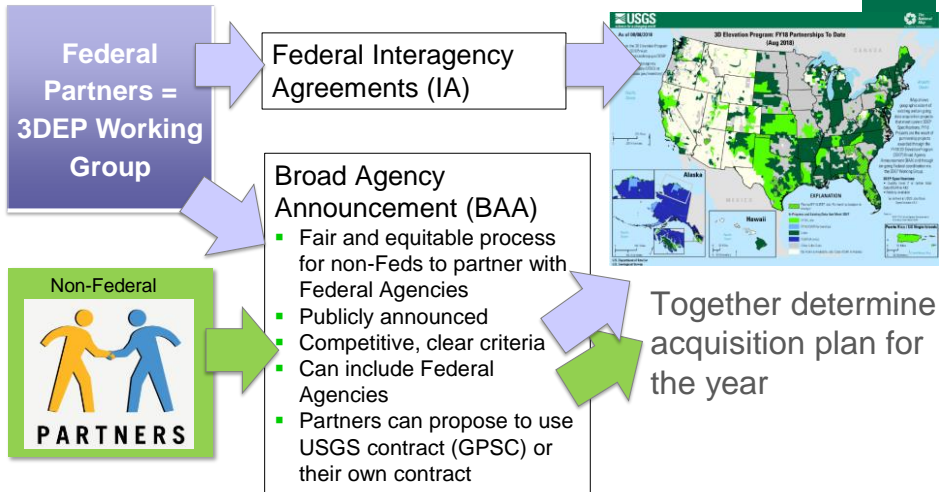
The USGS is not alone in our widespread use of the data. Each of the agencies contributing funding to the program have similarly discovered the value of the data and are experiencing an incredible return on investment for the dollars they commit to the program.

3DEP is a collective effort to develop partnerships to fund the program and accelerate the rate of acquisition to enable these benefits on a national level.

+ 3DEP Data Acquisition

3DEP is built on partnerships

8



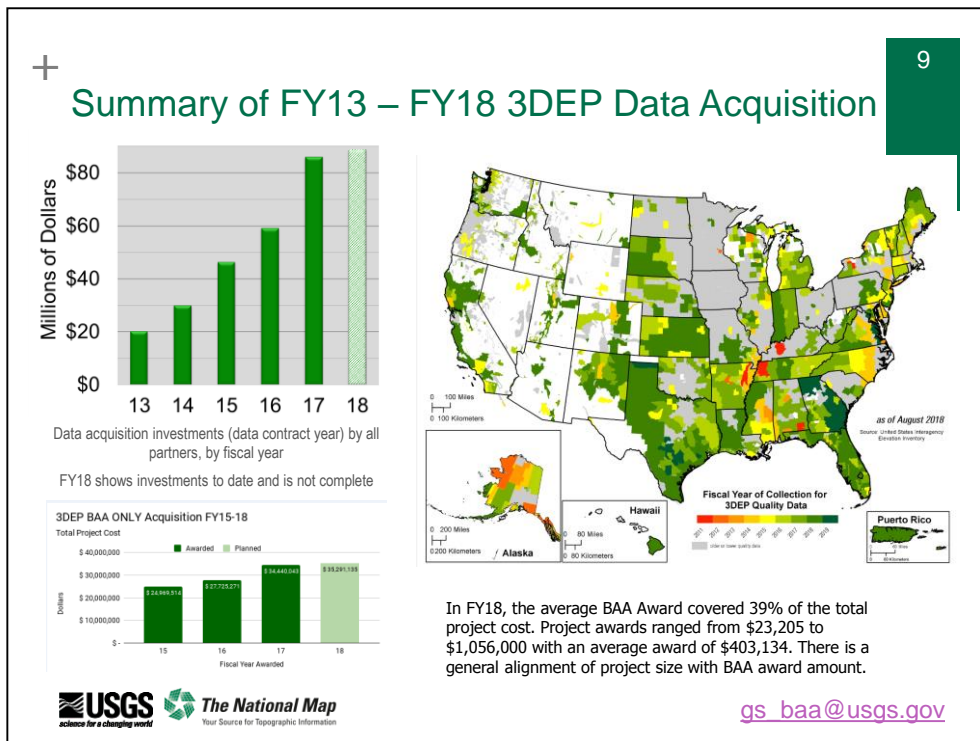
3DEP is built on partnerships.

There are two paths for lidar data acquisition.

USGS and other Federal Agencies may partner via Interagency Agreements.

The Broad Agency Announcement (BAA) is the vehicle for soliciting partnership from non-federal partners. It is a fair and equitable process that allows federal, state, local, tribal, and even private organizations to propose data acquisition projects.

Together the two acquisition streams form the 3DEP acquisition plans for the year.



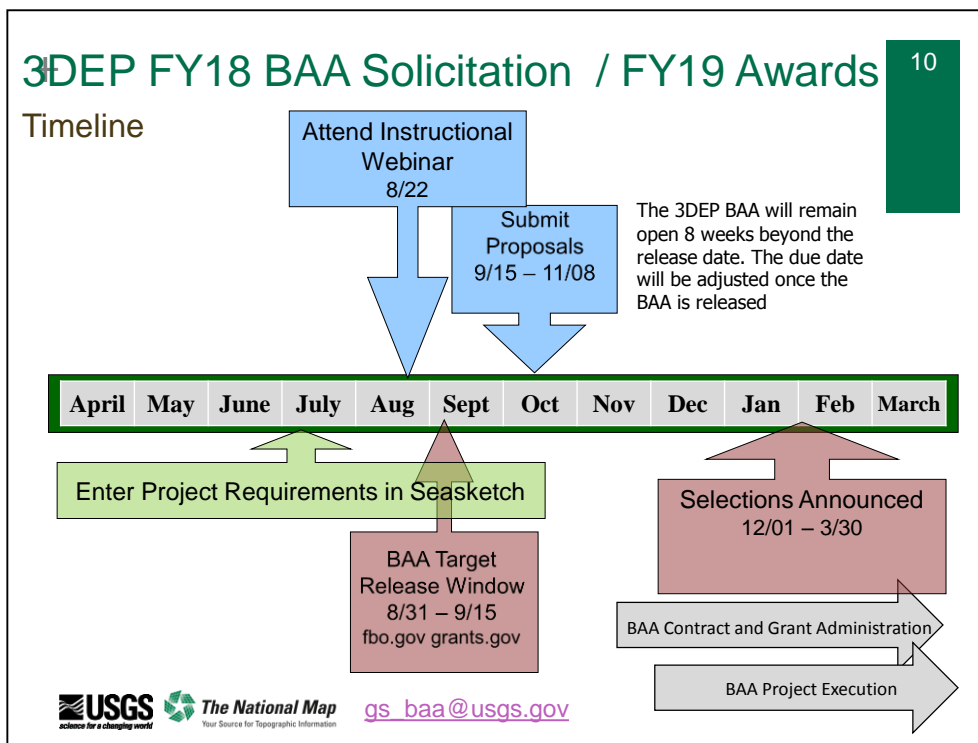
3DEP has experienced a steady growth over the last 5 years.

The 2 graphs on the left illustrate the financial investments in 3DEP. The top graph shows the overall investment by all funding partners. The graph on the lower left pulls out the portion of the investment resulting from BAA Projects. In FY17 and FY18, BAA Projects accounted for approximately 1/3 of the overall 3DEP investments. The BAA is a critical component of the program.

Please note that the FY18 are noted as investments “to date”. It is likely these numbers will increase over the final 2 months of the Federal fiscal year.

The graphic in the upper right illustrates the geographic location of the annual investments. The green colors representing FY 16, 17 and 18 are prominent.

3DEP awards have varied over the past 4 years. In FY18, the average BAA award covered 39% of the total cost of the project. Awards ranged from \$23,205 to \$1,056,000 with an average award of \$403,134. There are some federal guidelines that influence award amounts. These guidelines are covered in the BAA in *Section IV. B. Eligibility Information, Cost Share, Minimum Non-Federal match for Cooperative Agreements, Project Scope*. We encourage you to read this section and send specific questions to gs_baa@usgs.gov. We would be happy to review these guidelines as they apply to your particular situation.



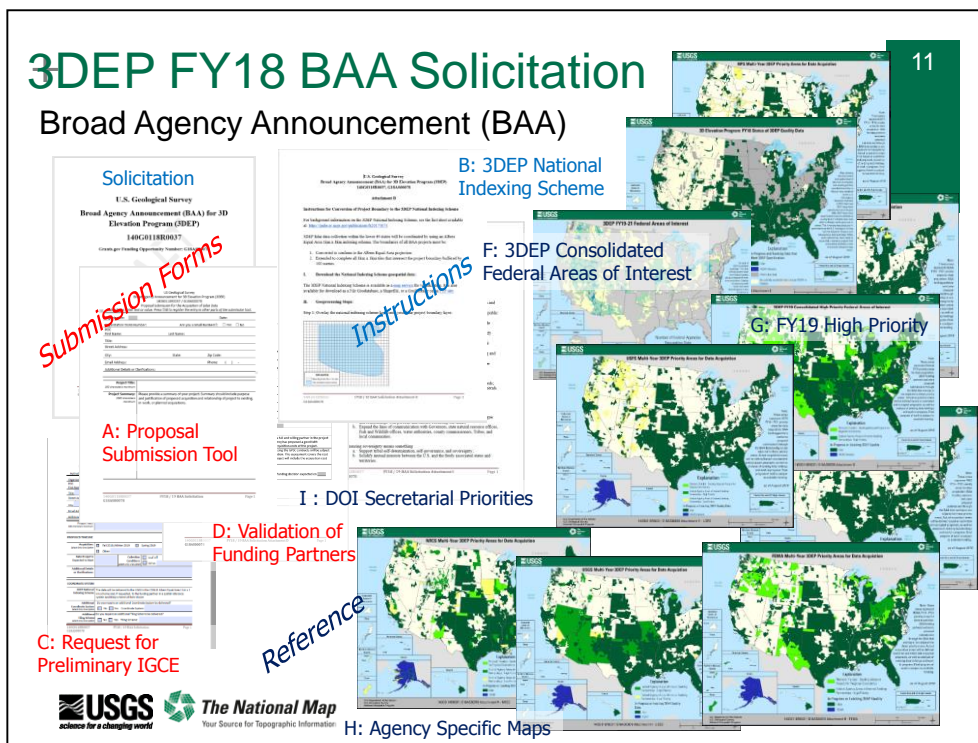
For those familiar with the Lidar acquisition process, you are aware that the entire project lifecycle, from formulation to product delivery is often 18 to 24 months, sometimes longer. This timeline focuses on the near term actions of gathering and reviewing requirements, submission of a BAA proposal and the selection and notification of a BAA partnership award.

The items in rose, along the bottom, are USGS actions. The items in blue across the top are your actions. The items in green and grey apply to all stakeholders.

The slides, with notes as well as all questions and responses resulting from the Q&A session at the end of this webinar will be posted to our websites. Proposals are due November 9th or 8 weeks after the BAA release date. While the BAA does remain open all year long, submission received by the initial deadline receive priority consideration for funding.

Initial project selections will be made beginning December 1st 2018. The USGS will notify you as soon as your project has been recommended for award. The federal government may not have finalized the FY19 budget at that time. If the government is operating under a continuing resolution (CR), our ability to spend or commit funding is limited. The evaluation team meets immediately following the initial deadline to review and prioritize projects. We will notify you that your project has been recommended for award pending the availability of funding. This will provide you early notification of our intent to fund your project so you may move forward with finalizing the details of your project and initiating the funding agreements needed to secure your funds. Federal funding partners (FEMA, NRCS, USGS) are a part of the review team and will be provided the opportunity to review BAA submissions that overlap with their high priority areas of interest.

Applicants choosing to make use of the Geospatial Products and Services Contracts (GPSC) will work with a 3DEP and/or GPSC POC to complete the required acquisition documents; applicants receiving cooperative agreements will work with a USGS cooperative agreement specialist.



Lets talk about the FY18 Solicitation

The documentation consist of 3 district types of information:

Instructions, Submission Forms and Reference Materials. For your convenience, all graphics will be available as jpgs, pdfs and as shapefiles.

The Instructional Materials include:

- The Solicitation
- Attachment B Instructions for converting your Project Area to the 3DEP National Indexing Scheme
- Attachment I Department of Interior Secretarial Priorities

The Submission Forms include

- Attachment A Proposal Submission Tool
- Attachment C Request for Preliminary Independent Government Cost Estimate (IGCE)
- Attachment D Applicant Validation of Funding Partners

The Reference Materials Included

- Attachment E 3DEP Status Map
- Attachment F Consolidated Federal Areas of Interest
- Attachment G Federal FY19 High Priority Areas of Interest
- Attachment H Agency Specific Areas of Interest (High and Low)

We will review each of these documents as we walk through the FY18 / FY19 BAA selection criteria

-
- 3D Elevation Program: FY18 Status of 3DEP Quality Data**
- Map showing the most current and quality level of 3DEP data in progress, and meeting publicly available 1dbr.**
 Annual data collected by the U.S. Interagency Elevation Inventory (2015) has met 2015 base level specification as of August 2018. 3DEP base level specification is defined as quality level 2 1dbr data (data in Alaska met more at or better). The inventory was produced in partnership with the U.S. Geological Survey and the National Oceanic and Atmospheric Administration. While every attempt has been made to accurately, inventory projects that are publicly available, some areas are omission they occur.
- Explanation**
 In-Progress and Existing Data that Meet 3DEP Specification
- 1dbr
 - RSAR (Alaska)
 - Other 1dbr data
 - No publicly available 1dbr data for RSAR in Alaska
- as of August 2018**
- Franklin D. Roosevelt National Monument**
- U.S. Department of the Interior
 U.S. Geological Survey
 National Geospatial Database**
- 145G1016R0037 / G18AS00078 Attachment E**

gs_baa@usgs.gov



This graphic illustrates the current available and in-work 3DEP data as of August 2018. We currently have available and in-work data for 48% of the nation; we do expect to reach the 50% mark by the end of September.

3DEP FY18 BAA Solicitation / FY19 Awards

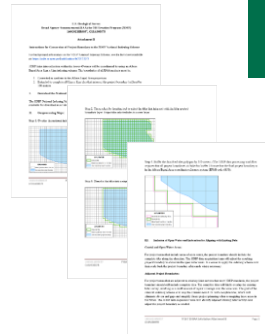
Selection Criteria – Areal Extent

13

- 3DEP prefers projects greater than 1500 square miles
- Projects smaller than the desired size may be considered:
 - To fill in gaps in coverage
 - Where project AOI defines a complete geophysical or political unit
 - For projects that represent significant cost share by the applicant
- 3DEP prefers contiguous areas
- The Project areas of all BAA proposals must conform to the Albers Equal Area 1 km x 1km 3DEP National Indexing Scheme
 - [Fact Sheet](#)
 - Attachment B: Instructions for conversion of A project boundary to the 3DEP National Indexing Scheme
 - Partners may request a second spatial reference system and tiling scheme of their choice



Fact Sheet



Attachment B



gs_baa@usgs.gov

The second selection criteria is Areal Extent.

3DEP prefers projects greater than 1500 square miles. Scores for this criteria increase as the project size increases.

As noted smaller projects will be considered to fill in gaps in coverage, where a project is complete geopolitical or geophysical unit, such as a county or a watershed or if the applicant is providing a substantial cost share and is just looking for a few dollars to complete the project.

3DEP prefers contiguous areas. The example in the bottom right illustrates where the specific requirements of the partner have been expanded to a contiguous block of data.

New this year, all BAA projects must conform to the Albers Equal Area 1 km by 1 km National Indexing Scheme. We have included the link to the 3DEP National Indexing Scheme fact sheet, in addition the solicitation includes Attachment B which is a set of step by step instructions on how to convert your AOI to satisfy these requirements. Technical Assistance is available should you have any issues during your conversion.

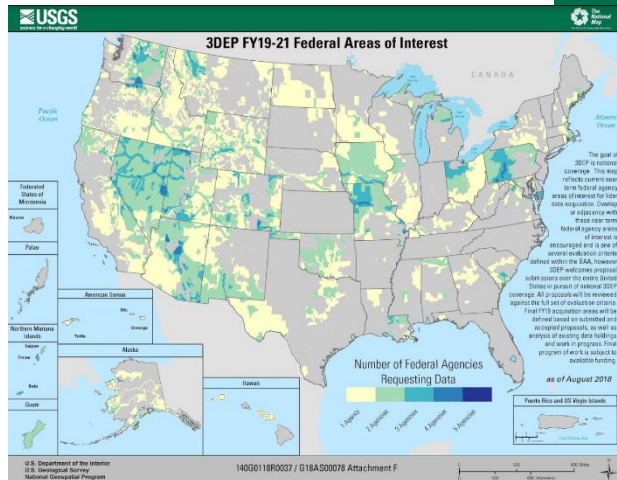
We recognize that our partners may have the need to have the data delivered in a spatial reference system and tiling scheme of their choice. The BAA Submission Tool provides an opportunity to note this. Dual delivery and expansion of your project AOI to complete the 1km x 1km tiles may increase the cost of your project by 1% to 3%. These additional costs should be considered when requesting funds from 3DEP to assure sufficient funding to complete the project.

3DEP FY18 BAA Solicitation / FY19 Awards

14

Selection Criteria - Overlap with Federal Geographic Areas of Interest

- Tiered Approach
 - Attachment F: Consolidated FY19-FY21 Federal Areas of Interest
 - 3DEP FY19 Consolidated High Priority Federal Areas of Interest
 - Planned/Funded – Seeking Adjacent Projects for Regional Consistency
 - Federal Agency AOIs Seeking Partnerships – High Priority
 - Federal Agency AOIs Seeking Partnerships – Lower Priority
 - 3DEP Agency Specific Maps
- BAA Attachments will be available on <https://nationalmap.gov/3DEP/FY19BAA.html> as a .jpg, a .pdf and as shapefiles



The third selection criteria is overlap with Federal Geographic Areas of Interest.

3DEP uses a tiered approach to developing a score for this criteria.

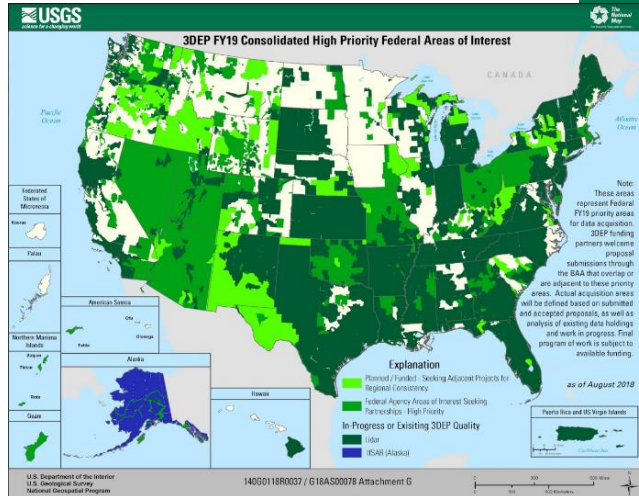
General preference is given to any project that overlaps any Federal area of interest as illustrated here on Attachment F

3DEP FY18 BAA Solicitation / FY19 Awards

15

Selection Criteria - Overlap with Federal Geographic Areas of Interest

- Tiered Approach
 - Attachment F: Consolidated FY19-FY21 Federal Areas of Interest
 - 3DEP FY19 Consolidated High Priority Federal Areas of Interest
 - Planned/Funded – Seeking Adjacent Projects for Regional Consistency
 - Federal Agency AOIs Seeking Partnerships – High Priority
 - Federal Agency AOIs Seeking Partnerships – Lower Priority
 - 3DEP Agency Specific Maps
- BAA Attachments will be available on <https://nationalmap.gov/3DEP/FY19BAA.html> as a .jpg, a .pdf and as shapefiles



Additional preference is given to projects that are adjacent to or overlap FY19 High Priority Areas of Interest.

You will note that this graphic has 2 categories:

- Planned/Funded – Seeking Adjacent Projects for Regional Consistency
- Federal Agency AOIs Seeking Partnerships – High Priority

The planned and fully funded projects are those where the federal requirement is such that a federal agency has plans to fully fund and acquire that AOI. The BAA will consider adjacent projects for regional consistency.

The second category illustrated on this map represents partially funded High priority Federal requirements for which they are actively seeking partnerships.

3DEP FY18 BAA Solicitation / FY19 Awards

18

Selection Criteria – Project Cost and Cost Share

- The USGS will no longer be estimating project costs based on an average 3DEP figure. An estimate for each individual project will be developed based on geographic extent, terrain and vegetative cover
- Applicants must include an ESTIMATED cost of their project by means of
 - An Independent Government Cost Estimate (IGCE) received from the USGS Geospatial Products and Services Suite of Contracts (GPSC)
 - Use Attachment C; submit by October 12, 2018 (Date Subject to change based on actual BAA release date, submit 4 weeks prior to BAA submission deadline)
 - An estimate received from a lidar acquisition contractor
 - The USGS will complete an independent review during the evaluation period to determine if the costs reflect valid industry cost for the specific geographic area and reflect a good value to the government
 - An estimate received from another source together with an estimate of how the costs were derived
 - The USGS will complete an independent review during the evaluation period to determine if the costs reflect valid industry cost for the specific geographic area and reflect a good value to the government
- Preference is given to applicants that offer larger contributions to the total cost of their projects
- Federal Agency Contributions
 - Federal Regional and Federal State Contributions are included as part of the application package
 - Federal HQ funding (USGS, FEMA HQ, NRCS NCGE) are included as a part of the BAA Award
 - For designated high priority areas (per attachment H), Federal HQ funding partners may increase their contribution to satisfy mission critical priorities



gs_baa@usgs.gov

An important change this year is that the USGS will no longer be estimating project costs based on an average 3DEP figure. An estimate for each individual project will be developed based on geographic extent, terrain, vegetative cover and other factors which influence the cost of any given project.

Applicants must include an ESTIMATED cost of their project by means of

- An Independent Government Cost Estimate (IGCE) received from the USGS Geospatial Products and Services Suite of Contracts (GPSC)
 - A form (Attachment C) that applicants can fill out and submit to the GPSC is included within the BAA package; We request that you submit this form by October 12, 2018
- An estimate received from a lidar acquisition contractor
 - The USGS will complete an independent review during the evaluation period to determine if the costs reflect valid industry cost for the specific geographic area and reflect a good value to the government
- An estimate received from another source together with an estimate of how the costs were derived
 - The USGS will complete an independent review during the evaluation period to determine if the costs reflect valid industry cost for the specific geographic area and reflect a good value to the government

Preference is given to applicants that offer larger contributions to the total cost of their projects

Note that this slide defines how Federal Agency Contributions are to be noted in BAA Proposals

Selection Criteria – Maturity of applicant's proposal and maturity of designated funding sources

- | Proposed Funding | | | | | |
|---|-------------|---|-----------------------|-------------|---|
| Applicant shall enter the proposed funding partners, the amount each partner proposes to contribute to the project and the total amount of funding partner. The applicant is also asked to provide the percentage of each partner's contribution. Each proposed funding partner must complete Attachment D: Validation of Funding Partner. The attachments shall be included as part of the submission package. | | | | | |
| Total Estimated Project Cost (from previous page) | \$ 0.00 | | | | |
| Funding Partner(s) | Type | Proposed Contribution for Life Data Acquisition, Processing, QC/QC/QC | Percent of Total JDEP | Guaranteed? | Handling of Prevalence? (see yet government's note data on prevalence handling decision will be final). |
| Choose One | | \$ | | Choose One | |
| Choose One | | \$ | | Choose One | |
| Choose One | | \$ | | Choose One | |
| Choose One | | \$ | | Choose One | |
| Choose One | | \$ | | Choose One | |
| Choose One | | \$ | | Choose One | |
| Choose One | | \$ | | Choose One | |
| Choose One | | \$ | | Choose One | |
| Choose One | | \$ | | Choose One | |
| Funding Partner Totals (from above) | | \$ 0.00 | | % | |
| Funds Requested from JDEP | | \$ 0.00 | | % | |
| Total Combined BAA Contributions | Federal | \$ 0.00 | | % | |
| | Non-Federal | \$ 0.00 | | % | |

Attachment D gs_baa@usgs.gov



Attachment D gs_baa@usgs.gov

Within the BAA Proposal Submission Tool, which we will look at shortly, applicant's are required to note each contribution as "Guaranteed" or "Pending"

The USGS does not like to leave funding on the table. We like to select projects that have the highest likelihood to succeed.

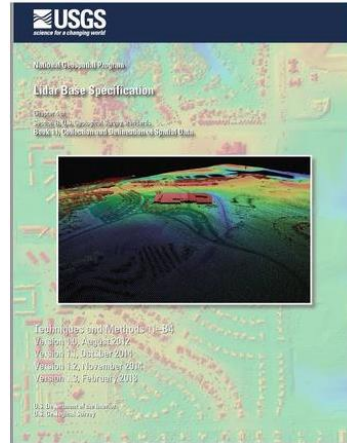
19

3DEP FY18 BAA Solicitation / FY19 Awards

20

Selection Criteria – Technical Approach

- A solid “ Technical Approach” which results in acquisition, processing and delivery of 3DEP compliant data to all stakeholders including release of the data to the public domain is the key to the satisfaction of all other goals and objectives
- Projects making use of the Geospatial Products and Services (GPSC) as the acquisition mechanism receive full score for technical approach
- Applicants proposing to manage their own contract (cooperative agreement) will be evaluated on the applicant's approach to data acquisition and required project deliverables. All products must meet the minimum 3DEP standards and specifications as defined in the lidar base specification



[USGS Lidar Base Specification version 1.3](#)



gs_baa@usgs.gov

One of the most important selection criteria is the applicant's technical approach. All projects must adhere to the latest USGS Lidar Base Specification; limited exceptions to this rule may be made for non-linear technologies. These limited exceptions will be documented and discussed with the applicant in advance of award.

Projects making use of the Geospatial Products and Services (GPSC) as the acquisition mechanism receive full score for technical approach

Applicants proposing to manage their own contract via a cooperative agreement will be evaluated on the applicant's approach to data acquisition and required project deliverables. All products must meet the minimum 3DEP standards and specifications as defined in the lidar base specification.

Let's pause a moment to discuss the differences between the GPSC and Cooperative Agreement Award Types.

3DEP FY18 BAA Solicitation / FY19 Awards 21

Selection Criteria – Technical Approach

Contract Mechanism - Geospatial Products and Services Contracts (GPSC)

- The USGS manages the contract; the applicant provides their portion of the project funding to the USGS through a Joint Funding Agreement (JFA) or an Interagency Agreement (IA). While each JFA is unique to the funding partner, we have a standard template that can be used by all. We will post a copy of this template to our website and would encourage potential partners to familiarize themselves with the document.
- The GPSC is a multiple award acquisition vehicle that is designed to utilize the teams of firms on the contract for services needed to accomplish 3DEP data acquisition. Firms on the GPSC have been selected based on their qualifications and performance in providing the professional services needed for 3DEP.
- The contracts include acquisition, processing, and quality assurance of lidar and other source geographic data.
- To ensure data quality and efficient development of standard products and services, the USGS prefers that partners use the GPSC when possible and practical and expects to allocate approximately 75% or more of the available funding to projects proposing to use the GPSC.

3DEP FY18 BAA Solicitation / FY19 Awards 22

Selection Criteria – Technical Approach

Contract Mechanism – Cooperative Agreement

- The USGS provides financial assistance to the applicant by means of a cooperative agreement. We pass funds to you.
- The applicant is responsible for securing a vendor to acquire the data
- The data must adhere to the data specifications and deliverables as defined in the USGS Lidar Base Specification V1.3; data must be placed in the public domain
- The USGS expects to allocate approximately 25% of the available funding to support cooperative agreements
- The USGS BAA Cooperative Agreement COTR along with representatives from the USGS National Geospatial Technical Operations Center (NGTOC) will hold a kick-off meeting with all recipients of cooperative agreements. The meeting will include the BAA recipient (typically a state or local government) and one or more individuals representing the vendor the recipient has selected to complete the work. These discussions will cover the lidar base specifications, a review of the deliverables, and a review of the USGS QA/QC process. This upfront communication is designed to provide a forum that will clarify the technical aspects of the project and expedite the final review and acceptance of the project data by the USGS.
- A Technical Meeting during the BAA Open Period will be arranged to answer any questions applicants may have about the lidar base specifications and USGS QA/QC. The meeting will cover common errors and encourage recipients and their selected vendor to check for these errors prior to submission
- The Meeting is open to all. Date and time to be announced on <https://nationalmap.gov/3DEP/FY19BAA.html>



gs_baa@usgs.gov

The second option is where the USGS provides financial assistance to the applicant by means of a cooperative agreement, we pass funds to you.

3DEP FY18 BAA Solicitation / FY19 Awards

Summary of Program Changes from Previous Year

23

Multiple Changes have been implemented between the 2018 and the 2019 Broad Agency Announcement. The primary changes include:

- I. *Overview Information:* Added reference to an option to release amendments to this BAA should additional funding or geographically focused partnership opportunities become available throughout the open period of this BAA.
- II. *3D Elevation Program (3DEP) Opportunity Description,*
 - B. Background:* Added reference to the Department of Interior's Secretarial Priorities. All awards resulting from this solicitation will address one or more of the priorities. Satisfaction of any specific priority is dependent upon the scope of the submissions received. The Secretarial Priorities are included in Attachment I.
 - C. 3. Opportunity Considerations and Clarifications, Acquisitions Over Federally Recognized Tribes.* Added reference to the relationship and applicability of the DOI policy on Consultation with Indian Tribes and the DOI Policy on Consultation with Alaska Native Claims Settlement to the acquisition, delivery and publication of 3DEP data over tribal lands.



gs_baa@usgs.gov

Before we move to a review of the submission form, I would like to quickly summarize some of the major changes between the FY18 and FY19 BAA. Many of these we have already discussed

I did want to highlight the bottom item on the page

The [DOI Policy on Consultation with Indian Tribes](#) and the DOI Policy on Consultation with Alaska Native Claims Settlement Act (ANCSA) Corporations requires that DOI Agencies provide federally-recognized Indian Tribes or ANCSA Corporations the opportunity to consult with the Agency before taking any action affecting tribal or ANCSA Corporation interests. USGS has determined that the acquisition and publication of airborne lidar over tribal lands requires tribal consultation. BAA award recipients, both those using GPSC as well as Cooperative Agreement recipients, are subject to this policy.

The USGS will initiate and manage the tribal notification and consultation process on behalf of all BAA award recipients during the project planning stage. The BAA award recipients will be notified that the project boundary contains tribal lands, and will receive a copy of the tribal notification letter. If an agreement on acquisition or publication of data over tribal lands cannot be reached, the portion of the project over tribal lands may not be proceed.

More extensive language on this policy is included within the BAA Solicitation. We would encourage you to read the language and follow up with any questions you may have.

3DEP FY18 BAA Solicitation / FY19 Awards

Summary of Program Changes from Previous Year

24

D. 1. 3DEP Lidar Base Specifications, Project Deliverables and Upgrade Options, Lidar Base Specifications: Noted the evolution from V1.2 to V1.3

D. 3. 3DEP Lidar Base Specifications, Project Deliverables and Upgrade Options, Product and Service Upgrades: Added text referencing the appropriate time to request additional products and services.

■ Notes

- Information on additional products and services available through the GPSC will be posted to our website
- Technical consultation is available

D. 5. 3DEP Lidar Base Specifications, Project Deliverables and Upgrade Options, 3D Elevation Program National Indexing Scheme: Added text and instruction on the new requirement for all FY19 submissions to conform to the 3DEP National Indexing Scheme. All 3DEP BAA projects must be converted, expanded and delivered to the USGS in the CONUS Albers Equal Area 1 km x 1km indexing scheme. Partners may request a 2nd delivery in a spatial reference system and tiling scheme of their choice.



gs_baa@usgs.gov

3DEP FY18 BAA Solicitation / FY19 Awards

Summary of Program Changes from Previous Year

25

V. Application and Submission Information

A. 1. Application Submissions, Geospatial Products and Services (GPSC)

Proposals: Noted a new requirement to submit Attachment C: Request for Preliminary Independent Government Cost Estimate (IGCE) for those applicants wishing to make use of the GPSC suite of contracts. The USGS will no longer be estimating project costs based on an average 3DEP figure. As estimate for each individual project will developed based on geographic extent, terrain and vegetative cover.

VI. Proposal Review Information

A. 1 – 7. *Criteria.* Added reference to the Department of Interior's Secretarial Priorities. All awards resulting from this solicitation will address one or more of the priorities. Satisfaction of any specific priority is dependent upon the scope of the submissions received. The Secretarial Priorities are included in Attachment I.

A. 3. *Criteria, Geographic Overlap with Federal areas of interest.* Added reference and specific instruction to the relative importance of the Federal Areas of Interest depicted in Attachments E – H. The shapefiles representing these AOIs are available for download: <https://nationalmap.gov/3DEP/FY19BAA.html>.



gs_baa@usgs.gov

3DEP FY18 BAA Solicitation / FY19 Awards

Summary of Program Changes from Previous Year

26

A. 4. Criteria, Project Cost and Cost Share. Added reference and instruction on the options for securing a cost estimate for a BAA project. The USGS will no longer be estimating project costs based on an average 3DEP figure. As estimate for each individual project will developed based on geographic extent, terrain and vegetative cover.

IX Attachments

Updated:

- B. BAA Proposal Submission Tool
 - D. Applicant Validation of Funding Partners
 - E. 3DEP Status Graphic (Existing, In-work and Planned with Funding)
 - F. 3DEP Consolidated Federal Areas of Interest

New:

- B. Instructions for Conversion of Project Boundary to the 3DEP National Indexing Scheme
- C. Request for Preliminary Independent Government Cost Estimate (IGCE)
- G. 3DEP FY19 Consolidated High Priority Federal Areas of Interest
- H. 3DEP FY19 – FY21 Agency Specific Multi-Year Plans for Lidar Data Acquisition
- I. Department of the Interior Secretarial Priorities



gs_baa@usgs.gov

+3DEP FY18 BAA Solicitation / FY19 Award

Submission Forms

27

US Geological Survey
Broad Agency Announcement for 3D Elevation Program (3DEP)
1400011800007 / C18A000078

Instructions: Enter text or value. Press TAB to register the entry in other parts of the submission tool.

Organization: Date:

Organization DUNS Number: Are you a Small Business? ☐ Yes ☐ No

POC:

2018 Name: Last Name:

Title:

Street Address:

City: State: Zip Code:

Email Address: Phone:

Additional Details or Clarifications:

Project Title:

3DEP Overview Information

Project Summary: Please provide a summary of your project. Summary should include purpose and justification of proposed acquisition and relationship of project to existing, ongoing, or planned acquisitions.

Project Synopsis: The USGS releases a list of projects receiving funds from the 3DEP. Please provide a short synopsis of your project suitable for publication should your project be selected for award.

Acknowledgement required: please read and check box ☐ The applicant agrees to the release of this project summary should this proposal be selected for award.

US Geological Survey
Broad Agency Announcement for 3D Elevation Program (3DEP)
1400011800007 / C18A000078

Validation of Proposed Funding Partners

Required for Proposal Submission

Applicant Information

First Name: Last Name:

Organization:

Project Title:

Proposed Funding Partner Information

First Name: Last Name:

Organization:

This form acknowledges that our organization is a full and willing partner in the project referenced above. If accepted for award, our agency has proposed a good faith contribution of \$ towards the acquisition costs of this project.

☐ In addition to the acquisition cost, applicants utilizing the GPSIC contracts will be subject to a 9% assessment on the value of their contribution. This assessment covers the cost of contract management. The total cost of the project will include the acquisition cost plus the assessment.

As stated in the proposal file: ☐ Guaranteed ☐ Pending, with a final funding decision expected on

Signature of Funding Partner:

Date:

1400011800007 FY18 / 19 BAA Solicitation Attachment D Page 1
C18A000078

A: Proposal Submission Tool

D: Validation of Funding Partners



gs_baa@usgs.gov

+3DEP FY18 BAA Solicitation / FY19 Award

Submission Forms – Proposal Submission Form

28

- The USGS uses a standard form for BAA Submissions
- We estimate it will take 1 hour to prepare and submit form
 - Does not include the time for project and partnership development
- Content includes
 - Contact Information
 - Project Title
 - Project Summary
 - Project Synopsis
 - Synopsis to be posted to USGS Website if selected for award

The image shows two versions of the USGS BAA Submission Form. The top version is the 'Proposal Submission Form' (USGS BAA Form 100-100) and the bottom version is the 'Project Synopsis Form' (USGS BAA Form 100-100). Both forms contain sections for contact information, project title, project summary, and project synopsis.

+3DEP FY18 BAA Solicitation / FY19 Award

Submission Forms – Proposal Submission Form

29

- Geographic Extent
 - ❑ GIS File in shapefile or KML/KMZ format
 - ❑ Project Diagram
 - ❑ Expanded to conform to the 3DEP National Indexing Scheme
 - Instructions included in Attachment B
 - ❑ Square Miles
 - Hit TAB after entering the square miles to auto populate other sections of the submission form
- Proposed Timeline
 - ❑ Acquisition Season
- Data Specifications
 - ❑ Must adhere to the USGS Base Lidar Specification V1.3
 - ❑ Select the Quality Level

Geographic Extent of Project

Geographic Extent: ☐ Classified Please specify: _____
☐ Unclassified Please specify: _____
☐ Other Please specify: _____
☐ No

3DEP National Indexing Scheme

The project diagram or GIS file has been expanded to conform to the 3DEP National Indexing Scheme. Refer to Attachment B for instructions.

Project Diagram

Hit TAB after entering square miles to auto populate other sections of the submission form.

Project Details

Project Title: _____

Project Description: _____

PROPOSED TIMELINE

Acquisition Season: ☐ Fall 2018/ Winter 2019
☐ Spring 2019
☐ Other: _____

DATA SPECIFICATIONS

Must adhere to the USGS Base Lidar Specification V1.3. In addition to the requirements outlined in the USGS Base Lidar Specification V1.3, data providers must ensure the quality of the data meets the following criteria:

Project will be submitted as: ☐ LAS
☐ LAZ
☐ LAS / LAZ combination (Provide details and/or deliverables LAS and LAZ files in project graphics and in project file bag)
☐ Other: _____

+ 3DEP FY18 BAA Solicitation / FY19 Award

Submission Forms – Proposal Submission Form

30

- Data Deliverables
 - All data will be placed in the public domain
 - Additional Products and Services
 - Selected after project award
 - Price of additional products and services is project dependent
- Approach to Data Acquisition
 - USGS Geospatial Products and Services Contract (GPSC)
 - Cooperative Agreement
- Technical Approach
 - NOT required if utilizing the services of the GPSC
 - CRITICAL for those proposing to manage the acquisition, processing and delivery of 3DEP compliant data to the USGS by means of a cooperative agreement

Additional Products and Services Additional products and services are available. The cost of additional products is:	
Additional Products and Services Additional products and services are available. The cost of additional products is:	Additional Products and Services Additional products and services are available. The cost of additional products is:
APPROACH TO DATA ACQUISITION Applicant must select one of the following options:	
<input type="checkbox"/> USGS Geospatial Products and Services Contract (GPSC) Applicant enters into agreement with the USGS to process data. The USGS will deliver the data to the applicant.	<input type="checkbox"/> Cooperative Agreement Applicant enters into agreement with the USGS to process data. The USGS will deliver the data to the applicant.
Technical Approach Applicant must provide a technical approach describing the proposed technical approach for acquiring and processing geospatial data.	
Agreement Applicant must provide a copy of the agreement between the applicant and the USGS.	

+ 3DEP FY18 BAA Solicitation / FY19 Award

Submission Forms – Proposal Submission Form

31

- Project Finances
 - Project specific ESTIMATE required from one of the following
 - Government IGCE (Attachment C)
 - Estimate from a lidar acquisition vendor
 - Estimate from another source (with explanation)
- Two options to enter project costs
 - Total Cost
 - Cost per square mile
 - See 3DEP [BAA FAQ](#) Question 2.13 for further instruction on entering cost for a QL1/QL2 project
- For questions or issues completing the project finances portion of the form send an e-mail to gs_baa@usgs.gov

PROJECT FINANCES

The cost of lidar acquisition varies based on geographic extent, terrain and vegetation cover. The cost includes data acquisition, data processing, and vendor quality assurance/quality control (QA/QC). Applicants must include an ESTIMATED cost of their project by utilizing one of the following options:

- a preliminary Independent Government Cost Estimate (IGCE) from the USGS Geospatial Products and Services Contracts (GPSC) Commercial Partnership Team (refer to Attachment C)
- an estimate received from a lidar acquisition vendor
- an estimate from another source together with an explanation of how the estimate was obtained

The estimate should include the costs for the entire project regardless of the QL requested. The USGS will complete an independent review during the evaluation period to determine if the proposed cost estimate reflects valid industry cost for the specific geographic area and reflect a good value to the government. In addition to the acquisition cost, applicants utilizing the GPSC contracts will be subject to a 5% assessment on the value of their contribution. This assessment covers the cost of contract management. The total cost of the project will include the acquisition cost plus the assessment.

Estimated Cost over

entire Project Area:
Select One (One Option)

☐ The applicant is using a preliminary Independent Government Cost Estimate (IGCE per Attachment C) received from the USGS Geospatial Products and Services (GPSC) Commercial Partnership Team to estimate 3DEP acquisition, processing and vendor QA/QC costs.

☐ The applicant is using an estimate from a lidar acquisition vendor or an alternate QL2 figure to estimate project acquisition, processing and vendor QA/QC costs.
Please provide explanation of how estimated cost was derived:

OR

The applicant should select only one option. If the applicant has been provided with a total ESTIMATE cost, use Option 1. If the applicant has a cost per square mile, use Option 2.

	Square miles	Cost per square mile	Total ESTIMATED Costs
Option 1: Provide Total Estimated Costs	0	\$ 0.00	\$0.00
OR			
Option 2: Provide Cost Per Square Mile	0	\$0.00	\$ 0.00

15000112000037
G18A000078

FY18 / 19 BAA Solicitation

Page 7

HS TAB to complete input

+3DEP FY18 BAA Solicitation / FY19 Award

Submission Forms – Proposal Submission Form

32

- List all Funding Partners
 - Designate Federal or Non-Federal
 - Enter proposed contribution
 - Note funding status
 - Guaranteed
 - Pending
 - If Pending, note date when the funding decision will be made
- Form includes Totals
 - Total estimated project cost
 - Funding partner totals
 - Funds requested from 3DEP
- For questions or issues completing the project finances portion of the form send an e-mail to gs_baa@usgs.gov

Proposed Funding					
Applicant shall enter the proposed funding partners, the amount each partner proposes to contribute to the project and the total funding available from partners. The applicant is also asked to provide the certainty of each partner's contribution. Each proposed funding partner must complete Attachment D: Validation of Funding Partner. The attachments shall be included as part of the submission package.					
Total Estimated Project Cost (From previous page)		\$ 0.00			
Funding Partner(s)		Proposed Contribution for Title Data Acquisition, Processing, GA/DC	% Cost Share for 3DEP Base Data	Certainty of Contribution (Guaranteed, Pending)	If funding is "Pending" list date when funding decision will be final.
Name(s)	Type				
	Choose One	\$		Choose One	
	Choose One	\$		Choose One	
	Choose One	\$		Choose One	
	Choose One	\$		Choose One	
	Choose One	\$		Choose One	
	Choose One	\$		Choose One	
	Choose One	\$		Choose One	
	Choose One	\$		Choose One	
	Choose One	\$		Choose One	
	Choose One	\$		Choose One	
	Choose One	\$		Choose One	
	Choose One	\$		Choose One	
Funding Partner Totals (From above)		\$ 0.00	%		
Funds Requested from 3DEP		\$ 0.00	%		
Total Combined BAA Contributions					
	Federal	\$ 0.00	%		
	Nonfederal	\$ 0.00	%		

1500012860077 FY18 / 19 BAA Solicitation Page 5
018A000078



gs_baa@usgs.gov

+3DEP FY18 BAA Solicitation / FY19 Award

Submission Forms – Validation of Partner Funding

33

- Attachment D
- Validation of funding partners
 - Required for all funding partners
 - Not binding; Good faith estimate of proposed contribution
- For questions or issues completing the Validation of Funding Partners attachment send an e-mail to gs_baa@usgs.gov

US Geological Survey
Bread Agency Announcement for 3D Elevation Program (3DEP)
14502118B00017 / 618A000078
Validation of Proposed Funding Partners
Required for Proposal Submission

Applicant Information	First Name		Last Name	
	Organization			
	Project Title			

Proposed Funding Partner Information	First Name		Last Name	
	Organization			
	<p>This form acknowledges that our organization is a full and willing partner in the project referenced above. If accepted for award, our agency has proposed a good faith contribution of \$_____ towards the acquisition costs of this project.</p> <p>In addition to the acquisition cost, applicants utilizing the GPOC contracts will be subject to a 15% assessment on the value of their contribution. This assessment covers the cost of contract management. The total cost of the project will include the acquisition cost plus the assessment.</p>			

☐ Anticipated agreement required; please email your final form

As stated in the proposal this contribution is:	<input type="checkbox"/> Guaranteed
	<input type="checkbox"/> Pending, with a final funding decision expected on _____ (date MM/DD/YYYY)

Signature of Funding Partner: _____
Date: _____

14502118B00017 FY18 / 19 BAA Solicitation Attachment D Page 1
618A000078

3DEP FY18 BAA Solicitation / FY19 Awards

Information Sharing Site

34

FY19 USGS Broad Agency Announcement (BAA) for the 3D Elevation Program (3DEP)

The FY18/FY19 Broad Agency Announcement (BAA) for 3D Elevation Program (3DEP) is scheduled for release on August 21, 2018. The BAA provides detailed information on how to partner with the USGS and other Federal agencies to acquire high-quality 3D Elevation data. Information and contents are available at 3d.baa.usgs.gov (Reference Number 145G0118R00017) and 3d.baa.usgs.gov (Opportunity Number 018450078). Applicants may contribute funds toward a USGS 3d data acquisition activity via the Geographic Products and Services Contracts (GPSC) or they may request 3DEP funds toward a 3d data acquisition activity where the requesting partner is the acquiring authority. Federal agencies, state and local governments, tribes, academia, institutions and the private sector are eligible to submit proposals. Proposals are due October 26, 2018. Although the BAA remains open until September 30, 2019, submissions received by the initial October 26, 2018 deadline receive priority consideration for funding. Proposals received after October 26 will be considered for award based on the availability of funding.

Reference Materials

Reference materials associated with the BAA will be made available when the BAA is released.

Project Awards

The selection of awards is dependent on the availability of funding. Project selection and notification will begin in November 2018 and continues into 2019. Awards are ongoing, to review the list and description of previous project awards, visit: [BAA Awards](#)

Public Webinars

The USGS will host a public webinar to introduce the BAA opportunity to the broader stakeholder community possible and to provide a summary of the application process. The public webinar will be held on August 22, 2018. USGS Broad Agency Announcement (BAA) for 3D Elevation Program (3DEP) FY18 national webinars - notice of Public Acquisition Opportunity webinar Materials:

Registration
Presentation - Available after the public webinar
FAQ - Available after the public webinar

3DEP and BAA Presentations in your state

To view the calendar of upcoming 3DEP/BAA presentations in your state or to request a presentation please click on the document below. This document will be updated on a regular basis as new presentations are added.

<https://nationalmap.gov/3DEP/FY19BAA.html>

A reminder to all that the most up to date information will be available on our 3DEP FY19 web pages.

Once the solicitation has been posted, the [fbo.gov](https://www.fbo.gov) and [grants.gov](https://www.grants.gov) links will be adjusted to take you directly to our solicitation

All Reference Materials will be linked from this page.

All questions from today's webinar will be posted under the FAQ heading. The FAQs will be updated weekly throughout the open period of the BAA

To view the calendar of upcoming USGS 3DEP and BAA presentations in your state, click the presentation logo on the bottom left of the site.



3D Elevation Program (3DEP)

35

Resources

USGS 3DEP Web Pages

<http://nationalmap.gov/3DEP>

FY19 USGS BAA 3DEP Web Page

<https://nationalmap.gov/3DEP/FY19BAA.html>

The 3D Elevation Program Initiative – A call for Action <http://pubs.usgs.gov/circ/1399/>

USGS NGP Lidar Base Specification V1.3

<http://pubs.usgs.gov/tm/11b4/pdf/tm11-B4.pdf>

*NOAA sponsored Seasketch site: U.S. Federal Mapping Coordination, A
Demonstration Site for Federal Mapping Data Acquisition*

<http://fedmap.seasketch.org>

USGS National Map – Download Elevation Data

<https://viewer.nationalmap.gov/basic/?basemap=b1&category=ned,nedsrc&title=3DEP%20View>

For Further Information on the 3DEP BAA Contact: gs_baa@usgs.gov

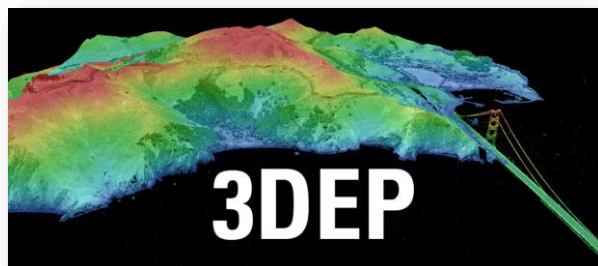


+ 3D Elevation Program (3DEP)

BAA Instructional Webinar

36

Questions



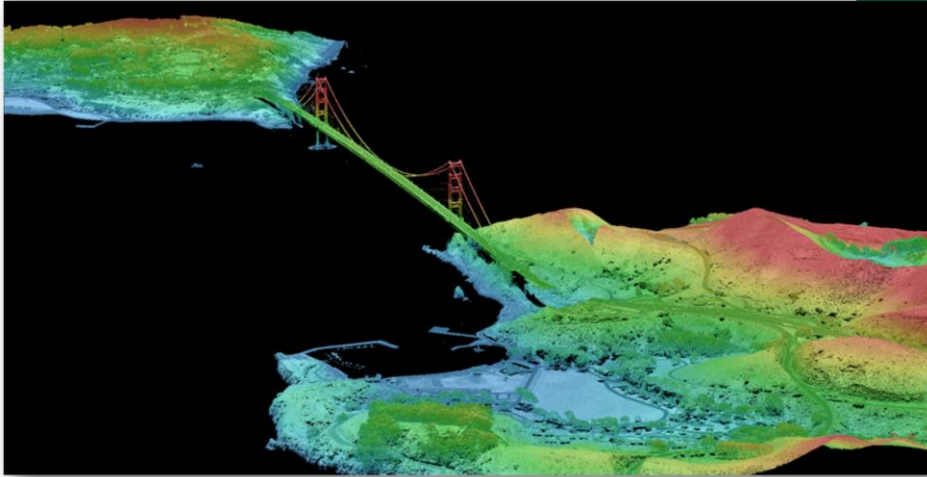
gs_baa@usgs.gov

That ends the formal presentation, we will now address questions. Note that responses to the questions asked on both of our national webinars will be documented and presented on our 3DEP web pages. The written responses may be more thorough than our initial response to provide an opportunity for the 3DEP program to provide background and/or contextual information necessary to completely respond to your question.

Allyson and Diana from our USGS 3DEP team will now facilitate the Question and Answer session.

+ Thank you!

37



The National Map
Your Source for Topographic Information